

BROOKHAVEN NATIONAL LABORATORY NATIONAL SYNCHROTRON LIGHT SOURCE		Number: LS-SDL-0008	Revision: C
		Effective: 04/04/05	Page 1 of 1
Subject: SDL Modulator High Voltage Lockout Tagout			
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*Document must contain approved signatures for validity

WORK ON SDL EQUIPMENT IS TO BE PERFORMED IN STRICT ACCORDANCE WITH NFPA-70E AND ES&H 1.5.1

ONLY KNOWLEDGEABLE / RESPONSIBLE PERSONNEL TO PERFORM WORK ON DUVFEL MODULATORS

THE MODULATORS HAVE MULTIPLE POWER SOURCES, BE SURE TO LOTO EACH APPLICABLE SECTION

1. Inspect the area and notify operator, if applicable, that the modulator is being taken off-line.
2. Turn off **120** and **208** Vac disconnect switch for **Modulator A, B, C, or E High Voltage Power Supply**.
3. Lock and tag switches/power sources in accordance with **BNL ES&H Standard 1.5.1**.
4. Open the **Modulator PFN** door and visually confirm electrical shorting switches (Ross relays) have closed.
5. Verify ground stick is connected to chassis ground.
6. With safety glasses and gloves on, use grounding stick to short both side of each **CAPACITOR** of the **PFN** circuit.
7. Attach grounding stick to **HIGH VOLTAGE** input connection.
8. Perform work.

UNDO LOCKOUT TAGOUT

1. Verify that all connection have been made according to **MODULATOR PFN** schematic.
2. Remove all tools, spare parts, and any equipment from **PFN** cabinet.
3. Remove grounding stick from **HIGH VOLTAGE** terminal and return to ground stick location. (ground stick resting location is part of modulator interlock).
4. Close door to **PFN** cabinet.
5. Remove lock and tag from disconnect switch in accordance with **BNL ES&H standard 1.5.1**.
6. Turn on disconnect switch in accordance with NFPA 70E.
7. Test MODULATOR for proper operation.

NSLS REVISION & PERIODIC REVIEW LOG

Document Number: LS-SDL-008

Subject: **SDL Modulator High Voltage Lockout Tagout**

> See NSLS Quality Control Coordinator for original revision and review signatures <

REVISION TABLE

Rev	Description	Date
A	First Issue	8/3/99
B	New klystron E is added	3/24/05
C	Add NFPA 70E , revise LOTO to include multiple sources	04/04/2005

PERIODIC REVIEW TABLE

Complete this table to record the completion of periodic reviews for an existing controlled document. A successful periodic review will reveal the existing document is current, correct, and does not require any revision/change.

Document Review Frequency

2 years

Rev	Date	Reviewed By (Print):	Signature: